15-801

Laminated Muntin Bar Method and Apparatus

This application is a Divisional of 09/781,630, filed 02-12-2001, and now Patent No. 6,687,982.

5 ## Field of the Invention

The present invention concerns muntin bars used for separating window panes of large size into smaller size panes to enhance the appearance of a window.

Background Art

10 Windows constructed from multiple glass panes utilized "muntins" or "muntin bars" to secure the edges of the individual glass panes within the window sash. In many windows, muntins formed distinctive grid patterns that are associated with architectural styles of buildings containing the windows.

Modern windows formed by insulating glass units utilize single glass lights separated by an 15 insulating dead air space. Where a particular architectural "look" is desired, a grid of muntin bars is fixed in the dead air space between the glass lights to simulate a multi-pane window. Typical muntin bars for insulating glass units are formed from decoratively coated interfitted metal tubes. The grids are anchored to the insulating glass unit periphery.

Constructing muntin bar grids for insulating glass units has been a labor intensive process. 20 As a consequence, manufacturing such units, and thus windows formed by the units, has been costly and inefficient. Some efforts to mechanize the manufacture of muntin grids have been made. Commonly owned United States patent 6,173,484 entitled "System for Fabricating Muntin Bars from Sheet Material" which issued January 16, 2001 to McGlinchy et al. is an example of a system for automated fabrication of muntin bars. The subject matter of this patent is incorporated 25 herein by reference. Commonly owned pending United States patent application serial no. 09/525,349 entitled "System for Fabricating Contour Muntin Bars from Sheet Material" is a second patent application to McGlinchy et al concerning automated fabrication of so-called contour muntin bars and the subject matter of this application is incorporated herein by reference.